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ABSTRACT

This report is the thirteenth of twenty-one reports dealing with the developmental history of a recent educational product: the Holt Social Studies Curriculum directed by Dr. Edwin Fenton. This series of courses stresses an inquiry approach to the study of history and the social sciences, specifically economic and political systems, world history, foreign cultures, American history, the behavioral sciences, and the humanities, and to a lesser degree values, attitudes, and subject matter content. This report describes: 1) materials; 2) rationale and procedures for use; 3) sources of funding, and evolution of ideas for the product; 4) planning, management, and organization for development; 5) evaluation using standardized tests and product development tests; 6) diffusion activities and extent of adoption. The future of the product and critical decisions made in the seven year history of curriculum development are discussed. Appendices contain examples of lesson plans found in teachers' guides and a list of the twenty-one reports. (Author/VW)

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PRODUCT DEVELOPMENT REPORT NO. 13

ED 062246

HOLT SOCIAL STUDIES CURRICULUM

DEVELOPED BY
CARNEGIE SOCIAL STUDIES CURRICULUM DEVELOPMENT CENTER,
CARNEGIE-MELLON UNIVERSITY

January, 1972

Contract No. OEC-0-70-4892

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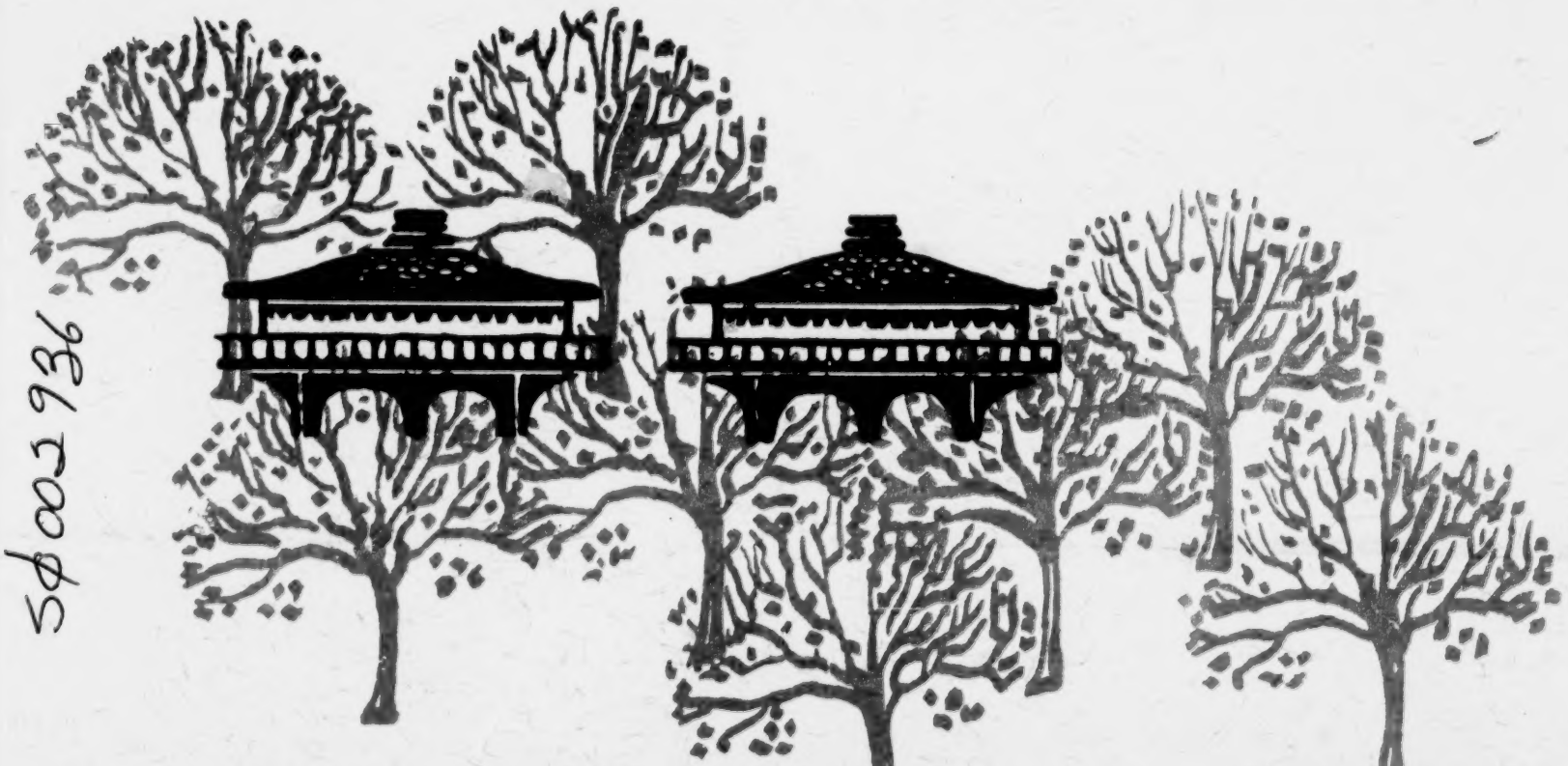

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DEVELOPED BY CARNEGIE SOCIAL STUDIES CURRICULUM DEVELOPMENT CENTER,
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American Institutes for Research
in the Behavioral Sciences

Palo Alto, California

January 1972

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PREFACE

This product development report is one of 21 such reports, each dealing with the developmental history of a recent educational product. A list of the 21 products, and the agencies responsible for their development, is contained in Appendix B to this report. The study, of which this report is a component, was supported by U.S. Office of Education Contract No. OEC-0-70-4892, entitled "The Evaluation of the Impact of Educational Research and Development Products." The overall project was designed to examine the process of development of "successful educational products."

This report represents a relatively unique attempt to document what occurred in the development of a recent educational product that appears to have potential impact. The report is based upon published materials, documents in the files of the developing agency, and interviews with staff who were involved in the development of the product. A draft of each study was reviewed by the developer's staff. Generally, their suggestions for revisions were incorporated into the text; however, complete responsibility for interpretations concerning any facet of development, evaluation, and diffusion rests with the authors of this report.

Although awareness of the full impact of the study requires reading both the individual product development reports and the separate final report, each study may be read individually. For a quick overview of essential events in the product history, the reader is referred to those sections of the report containing the flow chart and the critical decision record.

The final report contains: a complete discussion of the procedures and the selection criteria used to identify exemplary educational products; generalizations drawn from the 21 product development case studies; a comparison of these generalizations with hypotheses currently existing in the literature regarding the processes of innovation and change; and the identification of some proposed data sources through which the U.S. Office of Education could monitor the impact of developing products. The final report also includes a detailed outline of the search procedures and the information sought for each case report.

Permanent project staff consisted of Calvin E. Wright, Principal Investigator; Jack J. Crawford, Project Director; Daniel W. Kratochvil, Research Scientist; and Carolyn A. Morrow, Administrative Assistant. In addition, other staff who assisted in the preparation of individual product reports are identified on the appropriate title pages. The Project Monitor was Dr. Alice Y. Scates of the USOE Office of Program Planning and Evaluation.

Sincere gratitude is extended to those overburdened staff members of the 21 product development studies who courteously and freely gave their time so that we might present a detailed and relatively accurate picture of the events in the development of some exemplary educational research and development products. If we have chronicled a just and moderately complete account of the birth of these products and the hard work that spawned them, credit lies with those staff members of each product development team who ransacked memory and files to recreate history.

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PRODUCT DESCRIPTION

Product Characteristics

Name

Holt Social Studies Curriculum.

Developer

Carnegie Social Studies Curriculum Development Center, Carnegie-Mellon University.

Distributor

Holt, Rinehart and Winston, Inc.

Focus

The Holt Social Studies Curriculum is a series of courses which stress an inquiry approach to the study of history and the social sciences. The courses, which deal with economic and political systems, world history, foreign cultures, American history, the behavioral sciences and the humanities, also focus, but to a much less degree, on values, attitudes, and subject matter content.

Grade Level

Grade 9 through grade 12.

Target Population

The Holt Social Studies Curriculum was adapted for "typical" students from the Carnegie Social Studies Curriculum for able students. The Carnegie material was specifically designated for use by students in the top 20 percent of their class. The developers now assert that the courses in the Holt Social Studies Curriculum (HSSC) are designed for average and college-bound students, or the upper 75 percent of the students.

Rationale for Product

Long Range Goals of Product

The long range goals of the HSSC are those set originally by the Carnegie curriculum from which HSSC was derived. The most basic goal of the Carnegie curriculum was "helping each student develop to the limit of his ability into an independent thinker and a responsible citizen of a

democracy." The developers contend that their curriculum is "likely to produce a generation of students who are able to think creatively about society." They believe this because their curriculum is designed to help students learn inquiry skills which will help them organize and assess the quantities of new information produced each day. A less basic goal of the curriculum is to equip students to pass college board examinations and to do the kind of independent work demanded by college professors or employers.

The development of the product has led to other long range goals for the developers: a revised second edition, other curriculum material development, and a new doctoral program.

Objectives of Product

The basic long range goals noted above are divided into four major groups of objectives: attitudes, values, inquiry skills, and knowledge. The developers state their objectives as "learning," rather than behavioral, as none prescribe explicit performance criteria. They reasoned that setting behavioral objectives can be too constrictive on the activities of students and teachers. Furthermore, the rationale for the curriculum points out that the four areas (i.e., attitude, values, etc.) are interrelated and cannot be divided in practice; they are discussed separately only to clarify the overall goal. The objectives in the areas of inquiry skills and knowledge are the most clearly defined and a statement of specific objectives in these two areas is included in each lesson plan in the teacher's guide. The humanities course also includes a statement of affective objectives for each lesson.

Attitudes. One aim of the Holt curriculum is to encourage certain attitudes in students by the way in which classes are conducted. One of these attitudes is a willingness to take a cooperative and active role in a democratic society. This attitude is encouraged by expecting all students to participate in class activities. The rationale suggests that teachers provide an opportunity for all students to contribute to class discussions and that they adjust the task to the ability level of the student to encourage the development of a positive self-image on the part of the student. Another objective of the curriculum is to foster a willingness

to listen to all sides of an argument and to make decisions on the basis of reasoned investigation rather than depending on emotion or authority. To develop this attitude, a scientific mode of inquiry is used in class and different sides of issues are explored. The curriculum also aims at developing an attitude of continued interest in learning. The objectives in the area of attitudes have only been expressed in a general manner and no measures have been developed to determine how the curriculum influences student attitudes. How well the program meets these objectives depends primarily on the skill of the teacher and on the classroom climate the teacher establishes.

Values. The curriculum does not attempt to instill a particular set of values in students or enlist support for particular public policies, but does present issues which will challenge students to examine and clarify their own value system. However, the rationale states that the curriculum does accept the basic ethic of the dignity and worth of the individual. The rationale for the program defended examination of values as part of a social studies program this way:

> ...The value systems of taxpayers who send their children to public schools vary from one end of the spectrum to the other. In a democracy, parents have a right to mold the values of their children; teachers should not consign this right to themselves.
>
> On the other hand, teachers and the curriculum they use should consistently call upon students to clarify substantive values. The difference between teaching a value as truth and raising an issue involving a value to encourage clarification is important. Discussing a value in class without trying to arrive at consensus challenges each student to think for himself and to reflect upon the validity of values which he learned in the home, on the playground, or in the wider community. Clarification gives each child an opportunity to develop his unique value system. This expectation clearly falls within the responsibility given to teachers by the society. [Fenton, 1967b, p. 4]

Value questions are dealt with in all the courses. For example, in the Comparative Economic Systems course students discuss the values implicit in different economic systems; in the Shaping of Western Society students examine values of past societies and relate them to their own

lives; the humanities course places the most emphasis on values and provides opportunities for the students to compare their own values with the values of the people they study and to clarify their own value system. The Teacher's Guide for the Humanities in Three Cities, An Inquiry Approach, includes a statement of affective objectives in the daily lesson plans. These objectives include:

> To begin conceptualizing preferred values.
>
> To begin valuing attitudes and behavior that enable men to relate to each other as fellow human beings rather than as stereotyped images.

The rationale suggests this teaching strategy for examining value issues:

> Another form of directed discussion has proved to be particularly useful for developing coherent value systems. In this form, described so ably by Professor Donald Oliver of Harvard University, the teacher poses a value dilemma and then challenges students who hold different positions on the issue to look at the logical implications of the ideas they hold. Instead of asking questions of one student after another, the teacher concentrates upon the responses of one individual at a time. By asking probing questions or by posing challenging examples, he encourages a student to clarify his value position in the light of new data. If a student emerges from the discussion with his values unshaken, he has at least accumulated useful evidence to support his stand. If he finds his values unworthy of support, he has an opportunity to change them.

Inquiry skills. A major objective of the curriculum is the development of inquiry skills. The rationale gives this explanation for stressing inquiry:

> ...In a world where the total knowledge of mankind doubles each decade, a student who has not mastered inquiry skills may well find himself on the human scrap heap ten years after he leaves school. Cramming facts and generalizations from a textbook into his head cannot meet the challenge of the knowledge explosion. Unless a student can inquire independently of the questions which teachers use to cue him, he is not equipped to be an independent thinker and a responsible citizen of a democracy. [Fenton, 1967b, p. 6]

The curriculum development staff identified six major steps in the inquiry process and formulated this model for a mode of inquiry:

A Mode of Inquiry for the Social Studies

1. Recognizing a problem from data

2. Formulating hypotheses

   Asking analytical questions
   Stating hypotheses
   Remaining aware of the tentative nature of hypotheses

3. Recognizing the logical implications of hypotheses

4. Gathering data

   Deciding what data will be needed
   Selecting or rejecting sources on the basis of their relevance to hypotheses

5. Analyzing, evaluating, and interpreting data

   Selecting relevant data from the sources

   Evaluating the sources
      Determining the frame of reference of the author of a source
      Determining the accuracy of statements of fact

   Interpreting the data

6. Evaluating the hypothesis in light of the data

   Modifying the hypothesis, if necessary
      Rejecting a logical implication unsupported by data
      Restating the hypothesis

   Stating a generalization

[Fenton, 1967b, p. 6]

Students learn to use this mode of inquiry as they are presented with various types of data and practice all or parts of the inquiry process. The Holt curriculum particularly emphasizes the importance of formulating hypotheses and asking questions.

The center staff also identified 19 analytical concepts which they selected as useful in developing hypotheses. These concepts are:

Stressed first in Comparative Political Systems	Stressed first in Comparative Economic Systems	Stressed first in the Tenth-Grade Courses
Leadership	Values and Goals	Role
Decision-making	Scarcity and choices	Status
Institutions	Resources	Norms
Ideology	Price	Social class
Citizenship	Distribution	Groups
	Production	Group interaction
	Economic Growth	Culture change

[Fenton, 1967b, p. 6]

Each concept is associated with analytical questions which students can use as a basis for inquiry. For example, the concept of leadership is associated with questions such as: Who are the leaders? What are their attributes? How do they gain and maintain support?

The curriculum also introduces students to the meaning and use of certain procedural concepts such as hypothesis, fact, evidence, frame of reference, and generalization.

Knowledge of content. The rationale lists four criteria which were used to select the course content:

1. Materials were selected which would help the students learn the concepts essential for the mode of inquiry.
2. Content was chosen to fit the interests and needs of the students.
3. Content was selected to provide knowledge about contemporary governmental, economic and social problems.
4. Content was selected to provide knowledge about past and present societies.

Philosophy and Theories Supporting Product

Development of the curriculum relied heavily on the ideas of Jerome Bruner. Bruner had suggested that learning the structure of a discipline will better enable students to understand a complex society and to deal with the constant increase of knowledge. With this in mind the developers decided to base their instructional strategy on the inquiry approach and to organize the course content around social science concepts. It was felt that learning concepts should not be an end in itself, however, but that concepts should form a basis for the development of analytical questions.

Finally, learning to ask such questions about certain aspects of society should lead students to develop useful hypotheses.

The work and ideas of others also formed the basis for development of the curriculum. These were: identification of concepts--the Syracuse Social Studies Curriculum and Lawrence Senesh; identification of skills--Benjamin Bloom; inquiry procedures--Byron Massialas at Indiana University, Joseph Schwab at Chicago, Charlotte Crabtree at UCLA, and Robert Ennis at Cornell; procedures for helping students to clarify their positions on social issues--Donald Oliver and James Shaver at Harvard.

On the basis of these philosophies and theories the instructional strategy was designed to center around a discovery-oriented but controlled technique called directed discussion. In directed discussion the teacher's questions guide the students to generalize from data or discovery. Dr. Fenton explained: "Our students would know the meaning of a concept less clearly if they had been told what it was and asked to recite a definition. Nor could they have discovered the meaning of the concept without guidance from the teacher, since they would have no idea about what to discover." Consequently, teachers are required to demand evidence from students before allowing them to make generalizations.

Description of Materials

Organization and Format of Materials

The Holt Social Studies Curriculum consists of a sequential series of courses for grades nine through twelve which emphasize an inquiry approach. Materials for each course consist of a student textbook of readings, an audiovisual kit, a test booklet, and a teacher's guide with daily lesson plans. The courses are sequential and have been planned to provide cumulative learning, but each course is self-contained and can be used independently. The suggested, but not required, sequence for using the courses is:

	First Semester	Second Semester
Grade 9	Comparative Political Systems	Comparative Economic Systems
Grade 10	The Shaping of Western Society	Tradition and Change in Four Societies
Grade 11	A New History of the United States	
Grade 12	Introduction to the Behavioral Sciences	Humanities in Three Cities

Textbooks. The student texts are hardbound books and are similar in outward appearance to traditional textbooks, but the content and format of the books differ substantially. The textbooks are designed to encourage students to analyze and interpret what they read. Most of the reading material is not in an expository form, but rather in the form of short selections which provide data for students to analyze using an inquiry process. The readings include excerpts from books, diaries and memoires, government documents, essays, speeches, magazine and journal articles, pieces of fiction, graphs, and tables. Expository essays are also used when appropriate to link readings and to provide factual background. The reading for each lesson is preceded by a short introduction and several study questions which guide the students as they read. The first questions usually ask for factual information; later questions ask for interpretation and implications of the information. For example, these questions are given before several documents on the early British Parliament:

> 1. Who called the parliaments? Who was invited to attend? What was the difference in the tone of the summons sent to different people?
>
> 2. What was the purpose of the parliaments? What did they actually accomplish?
>
> 3. Using these documents, what analytical questions can you ask to discover why Parliament gained strength under Edward I, to discover what gains Parliament made?
>
> 4. What hypothesis would you form about the development of Parliament under Edward I? What other evidence do you need to support this hypothesis?
>
> [p. 130, The Shaping of Western Society]

Audiovisual component kit. The textbooks do not have any photographs and only a few drawings such as maps and timelines, but each course has a large audiovisual kit consisting of overhead transparencies, recordings, filmstrips, and classroom handouts. The audiovisual kit is not just a supplement to the course, but is an integral part, with each item intended for a specific purpose in a particular lesson. The aim of the curriculum is to provide information in the most appropriate form, written or audio-visual, depending on the objective of the lesson. Recordings are used to

teach students to listen analytically to what they hear; transparencies are often used to present graphs and tables and allow the teacher to present data in a way which will support generalizations; filmstrips are used to develop ideas in depth. The audiovisual kit also includes spirit masters for class handouts which are used to supplement the readings in the textbook. The handouts are a page or two of written materials and are used for various purposes, such as introducing additional information on a topic or providing data for a discovery exercise.

Tests. Each course has a student test booklet with tests for each chapter in the textbook. Each test includes both multiple-choice questions and essay questions. The multiple-choice questions stress knowledge of content and also measure ability to use inquiry skills; the essay questions can be used to assess knowledge, skills, and ability to present ideas in written form. The teacher decides which essay questions to use based on the ability of the students and on the objectives the teacher wants to emphasize. Teachers can also develop other means of evaluation. The testing program does not include instruments for measuring the affective objectives of the curriculum.

Teacher's guide. A detailed teacher's guide provides lesson plans for each reading in the textbook. Each lesson begins with a statement of the objectives of the lesson and a list of the materials for the lesson. The lesson plan is printed in two columns. The left-hand column gives teaching suggestions, such as specific discussion questions, instructions for use of audiovisual materials and procedures for organizing and conducting the class. The right-hand column includes reasonable responses students might make and suggestions for directing the discussion. In Appendix A are two lesson plans which typify those provided in the teacher's guide.

Teachers are encouraged to use their own judgment in selecting teaching strategies and the lesson plans are only suggestions and not intended to limit the teacher. The rationale for the curriculum gives this explanation of the purpose of the lesson plans:

> The lesson plans are not proscriptive; they have been designed to help rather than to restrict the social studies teacher. Teachers may choose to use the lesson

> plans in a variety of ways. More experienced or sophisticated teachers may decide not to use a lesson plan if they believe that objectives for their particular students should be somewhat different. Other teachers, including those who are using this material for the first time, may choose to follow the lesson plans with little or no modification.
>
> [Fenton, 1967b, p. 22]

Each teacher's guide also includes an introduction explaining the curriculum and an appendix which contains most of the materials from the audiovisual kits, including copies of the handouts, pictures of the transparencies, and transcripts of the recordings.

Teacher training materials. Teachers do not require special training to use the curriculum because of the detailed lesson plans in the teacher's guides. But most teachers would benefit from training or background information on the use of the inquiry method to teach the social studies. Two professional books by Dr. Fenton are available: Teaching the New Social Studies in Secondary Schools: An Inductive Approach and The New Social Studies. An explanation of the rationale of the curriculum, Developing a New Curriculum: A Rationale for the Holt Social Studies Curriculum, is also available. Holt also distributes 11 teacher training films. Five films are of Dr. Fenton demonstrating the inquiry approach in a classroom and six films demonstrate the use of audiovisual materials in the curriculum. In addition to these materials, Holt field representatives are available to assist teachers in implementing the curriculum and many college methods courses deal with strategies for teaching the "New Social Studies."

Content of Materials

Each course is self-contained and does not assume specific knowledge on the part of the student. But the courses are arranged in a sequential, cumulative order in which concepts introduced in the early courses are expanded and reinforced in later courses. Basic concepts in political science and economics are introduced in the ninth grade and concepts from sociology and anthropology in the tenth grade. These concepts are further developed in later courses as they are applied in new contexts. A major consideration in selecting content for the courses was to match the courses

with the academic specialty of teachers at each grade level so teachers will have the background knowledge needed to teach the new curriculum. A brief description of the content of each course follows:

Comparative Political Systems (Grade 9, First Semester). Students are introduced to some key concepts in political science and then apply these concepts in examining the political systems of the United States and the Soviet Union. The first unit contains a series of readings about two simple political systems: a group of American prisoners of war and a tribe of American Indians. These readings are used to introduce and develop the concepts of leadership, decision making, institutions, and the role of the citizen and ideology. These five concepts provide a framework for the comparative study of the government of the United States and the Soviet Union. A variety of readings are used to compare the two systems: excerpts from the United States Constitution provide a basis for examining our governmental institutions; magazine articles present a description of Soviet leaders; case studies explore the decision making process; graphs present data on voter behavior in the United States. The course concludes with a unit on civil rights, civil liberties, and civil disobedience in the United States.

Comparative Economic Systems (Grade 9, Second Semester). The course on comparative economic systems introduces basic economic concepts and examines different economic systems and how these systems answer three important questions: What to produce? How to produce it? For whom to produce it? The course begins by emphasizing the importance of values underlying economic systems. It then introduces central economic concepts and discusses the uses and limitation of schemes for classifying economic systems. Three types of economies are compared: the traditional economy of societies such as the Eskimos, the command economy as exemplified by the Soviet Union where economic decisions are made by the government, and the market economy exemplified by the United States. The course avoids oversimplification of economic systems and the readings illustrate how the model of a market economy has been modified in the United States and how the model of a command economy has been modified in the Soviet Union. Economic concepts developed in the course include economic values and goals, scarcity, resources, price, distribution, production, and economic growth. Graphs and charts are frequently used to present data

for interpretation. Students are encouraged to form their own judgments on economic systems based on their own values.

The Shaping of Western Society (Grade 10, First Semester). This course deals with the topics traditionally included in a course on western civilization, but does so through readings drawn mainly from primary sources and linked together with historical essays and time lines. For example, the chapter on the classical heritage includes the following: excerpts from Pericles' speech from History of the Peloponnesian War by Thucydides; the Ten Commandments, the Sermon on the Mount, and other selections from the Bible; and a simplified version of parts of the Justinian Code. The chapter begins with a time line and a brief overview, a short introduction precedes each reading, and an historical essay on the classical heritage concludes the chapter.

The first section of the course provides students with the tools for analyzing the readings. Students learn about the methodology of history by classifying and evaluating information, using hypotheses, and developing procedures for solving problems through the inquiry method. This section also introduces the use of concepts drawn from the social sciences in analyzing historical information. Throughout the course students are asked to apply this methodology to their readings.

Tradition and Change in Four Societies (Grade 10, Second Semester). This course deals with four non-Western countries--the Republic of South Africa, Brazil, India, and China. For each country the traditional society, the impact of Western ideas and institutions, and a major contemporary problem are analyzed. The unit on the Republic of South Africa focuses on race relations, particularly on the policy of apartheid, and the historical development of South African racial attitudes and institutions. Racial relations also provide the focus for the study of Brazil and readings deal with the process of racial amalgamation and assimilation and the extent that racial prejudices still exist in Brazil. The unit on India focuses on economic development and the transition from a traditional to a more industrial society. The study of China examines the society of traditional China and life in communist China, particularly the role of government. In most social

studies programs the study of other cultures is done through geography courses with emphasis on factual knowledge about many countries and the development of map skills. In contrast, the Holt program deals in depth with four countries and concentrates on the history and culture of each country. Sociological concepts are introduced, including role, status, norms, social class, groups, group interaction, and culture change.

A New History of the United States (Grade 11, a full-year course, also available in two parts). This course follows a chronological sequence and provides in-depth study of selected aspects of American history using inquiry-oriented materials with historical essays and time lines to provide continuity and perspective. The course begins with the same chapter used in the tenth grade on the methodology of history and the use of the inquiry approach. Chapter two reviews the important concepts and analytical questions introduced in earlier courses. These chapters provide students using the curriculum for the first time with the background and skills needed for the inquiry approach.

The other chapters in the textbook consist of a variety of materials, generally from primary and secondary sources, and conclude with an historical essay summarizing the related historical period. The combination of the expository material in the historical essays and the inquiry oriented materials provides a transition from the traditional to the inquiry approach.

Topics dealt with include colonial America, the American Revolution, the growth of the United States, the Civil War, Reconstruction, the rise of the United States as a world power, the depression and the New Deal, and the historical background of current problems, such as the cold war and civil rights. Source materials include excerpts from Benjamin Franklin's Auto-biography, Virginia Laws on Slavery, the Constitution, articles by several presidents, and articles by other writers, including John Kenneth Galbraith and Stokely Carmichael. The focus of the course is not on specific facts, but rather on trends, particularly the economic, political, social and intellectual traditions of the United States.

Introduction to the Behavioral Sciences (Grade 12, First Semester). The course on the behavioral sciences is intended as a senior year elective course and draws from the fields of psychology, sociology, and anthropology.

The textbook does not contain expository explanations of the structure of each of these disciplines, but rather focuses on the approach of the behavioral scientist to problems. According to the Holt brochure (Fenton, 1967b), the readings were selected for their "intrinsic interest, their comprehensibility to the non-scientist, and their relevancy to the student and to contemporary problems." The chapters in the book are "On the Nature of Behavioral Science," "Coming of Age in America," "Adolescence," "The Search for Identity," "Schizophrenia," "Race and Prejudice," and "Frontiers of Behavioral Science." The first chapter compares scientific and unscientific behavior through several readings on water witching and discusses the scientific attitude and the methodology of the behavioral scientist. The remaining chapters explore topics through a variety of readings, including excerpts from books written by behavioral scientists for lay readers, reports of experiments and surveys, and first-hand accounts and interviews. Authors include Margaret Mead, John Updike, Bruno Bettelheim, the National Advisory Commission on Civil Disorders, B. F. Skinner, and Carl R. Rogers.

Humanities in Three Cities (Grade 12, Second Semester). This course focuses on three value questions: What is a good man? What is a good life? and What is a good society? Through the study of ancient Athens, Renaissance Florence, and modern New York City students compare the values of others with their own concept of the good life. The course does not propose to teach the students any one set of values, but rather to provide students with an opportunity to examine and clarify their own value system. The humanities course is considered a climax to the theme of value clarification which runs through all four years of the curriculum. Many of the lessons stress inquiry skills but the major emphasis of the course is value clarification.

Readings and audiovisual materials are used to describe each city, its citizens, their ideals as expressed in their literature and art, and the realities of their economic, political, and social systems. The textbook includes poems, songs, stories, biographies, autobiographies, essays, and even graffiti. The audiovisual kit includes filmstrips on each city and its art. As they learn about the values of people in these cities, students are encouraged to relate them to their own values through a diary in which they record their thoughts and feelings about their personal philosophy. The diary

is used as a source of information for the last assignment of the course in which they are asked to express their own ideas about the nature of the good man, the good life, or the good society in a form of their choosing, such as a photographic essay, collection of original drawings or poems, or an essay.

Cost of Materials to User

Cost of materials. The Holt Social Studies Curriculum includes more than just a series of textbooks. It is a system of student textbooks, audiovisual kits, test booklets, teacher's guides, programs of supplementary reading, a rationale, methods book, and films for teacher training. Materials can, of course, be purchased separately, and some school districts just use the student textbooks and teachers' guides. Some of the student textbooks are also available as a series of smaller paperback units. The prices of the student textbooks range from $2.97 to $4.26 for the semester courses, and the price for the textbook for the year-long American History course is $5.91.

The price of the audiovisual kits for the semester course ranges from $93.00 to $124.00, and the audiovisual kit for the American History course is $140.50. All materials are distributed by Holt, Rinehart and Winston, Inc. The teacher training films are available on a rental as well as a sales basis.

Procedures for Using Product

Learner Activities

The most common student activities are reading, class discussion, viewing transparencies and filmstrips, listening to records, writing exercises, group work, and taking tests.

The texts contain between 60 and 64 lessons per semester with each lesson intended as homework for one night. Since a class generally meets from 75 to 90 times in a semester, students have sufficient time to engage in activities such as independent study, individual conferences, current events discussions, study of topics of local or special interest, viewing films, and testing. Lists of supplementary readings are included in the textbook and can be used to provide additional information on certain topics or as a basis for independent study in areas of special interest.

Teacher Activities

The curriculum includes a range of teaching strategies from short lectures to student-directed discovery. Teacher-directed discussion is the most frequently used strategy. In directed discussion the teacher leads students through data toward generalizations by the kinds of questions he asks. This type of discussion is used to teach students the meaning of concepts, to help them formulate hypotheses, and to learn the steps in the proof process.

Following is a list of the types of interactions which are incorporated into each HSSC course:

Teacher-to-Student Action

Exposition, Direction, Questioning, Evaluation, Testing

Teacher-Student Interaction

Questioning, Discussion, Dialogue

Student-Student Interaction

Case Study, Discussion, Debate, Role-Playing

Student Action

Testing, Reading, Recitation, Writing, Independent Study, Case Study

Some out-of-class preparation is required. The following activities are required to adequately prepare for a day's lesson: review of the lesson plan, review of students' materials, prepare for any audiovisual presentations, review questions to be raised, and review of lesson objectives.

Holt states that the only formal requirement to teach HSSC is accreditation by the school system, and they have not developed an in-service training program. However, some teacher training materials, as noted earlier, are available from Holt. Furthermore, consulting services are available from both the publisher and the developers. The actual extent and implementation of training programs are left to the discretion of individual schools.

Provisions for Parent/Community Involvement

No provisions for parent/community involvement are specifically included by the developers.

Special Physical Facilities or Equipment

Teachers need access to a duplicating machine, filmstrip projector, overhead projector, screen, and phonograph. No special facilities are necessary for storage of materials.

Recommended Assessment Techniques for Users

In the HSSC achievement is defined in terms of mastery of stated learning objectives: knowledge, inquiry skills, attitudes, and values. Tests, as noted earlier, are provided for each unit in each course. No instruments for evaluating affective objectives are provided; the developers suggest that careful observation by the teacher is the best substitute.

ORIGINS

Key Personnel

Dr. Fenton was the key figure in the development of the Holt Social Studies Curriculum. He initiated and directed a U. S. Office of Education funded project to develop a new social studies curriculum and worked with Holt, Rinehart and Winston, Inc., in developing the revised version of this curriculum, the Holt Social Studies Curriculum. Dr. Fenton, a Professor of History at Carnegie-Mellon University, had taught high school for four years before he joined the faculty at Carnegie in 1954. He continued his interest in secondary education in the areas of curriculum change and teacher education, and participated in the development of Advanced Placement History courses for high school students and in the planning of a program for able students in the Pittsburgh public schools.

As noted in the section below on Management and Organization, supervisors. the co-directors from the Pittsburgh Public Schools, an audiovisual director, a project evaluator, an administrative assistant, cooperating teachers from the Pittsburgh Public Schools, and some consultants helped Dr. Fenton. However, most of the senior staff in this group were with the project for only about two years or spent only a small proportion of their time on the project. Hence, they cannot be considered key personnel.

Sources and Evolution of Ideas for Product

Through his work Dr. Fenton became aware of the need for new materials for teaching the social studies, materials which would challenge students to think and which could be used in an inquiry approach to social studies using the methodology of the social scientist and historian. In the early 1960's he began to develop materials which would lend themselves to an inquiry approach and compiled a book of readings in world history, Thirty-Two Problems in World History, and designed a set of overhead transparencies, Fenton-Wallbank World History Program for the Overhead Projector, both of which were successfully produced and distributed on a commercial basis.

Dr. Fenton felt that more comprehensive materials were needed, and in spring 1963 Carnegie submitted a proposal to the Cooperative Research Branch of the U. S. Office of Education for a 4-1/2 year project under the direction of Dr. Fenton for the development of a four-year high school social studies curriculum for able students. The climate was favorable for such a project. The U. S. Office of Education had funds available for curriculum development projects and the emphasis in education during the late 1950's and early 1960's was on the needs of the able students. And the proposal was a strong one. Dr. Fenton had already established himself as a leader in the field of social studies innovations and had experience in curriculum development. He had access to colleagues on the Carnegie staff who also had experience in curriculum development and expertise in history and the social sciences, and he had already established a cooperative relationship with the Pittsburgh Public Schools which were to be involved in the development process. The U. S. Office of Education accepted the proposal without revision and the project began in May 1963 with a budget of $250,000, or $62,500 per year, and the Social Studies Curriculum Development Center was established at Carnegie to house the project.

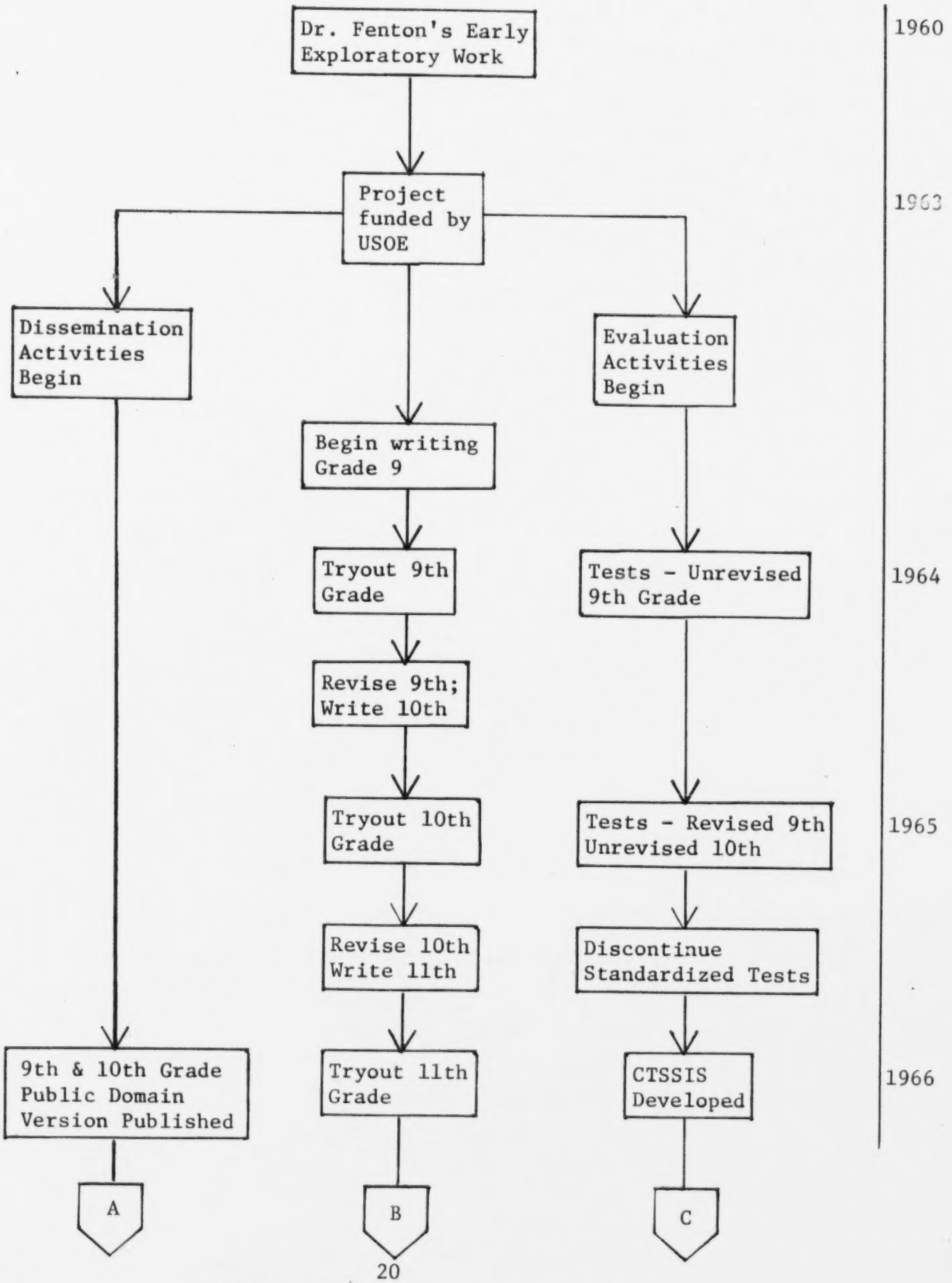
The primary purpose of the project was to design materials which would challenge able students and would incorporate current knowledge and methodology in history and the social sciences. The proposal explained why such a social sciences curriculum was needed. It cited the opinions of university and secondary school "scholar-teachers" on the need for improved social studies programs, stating:

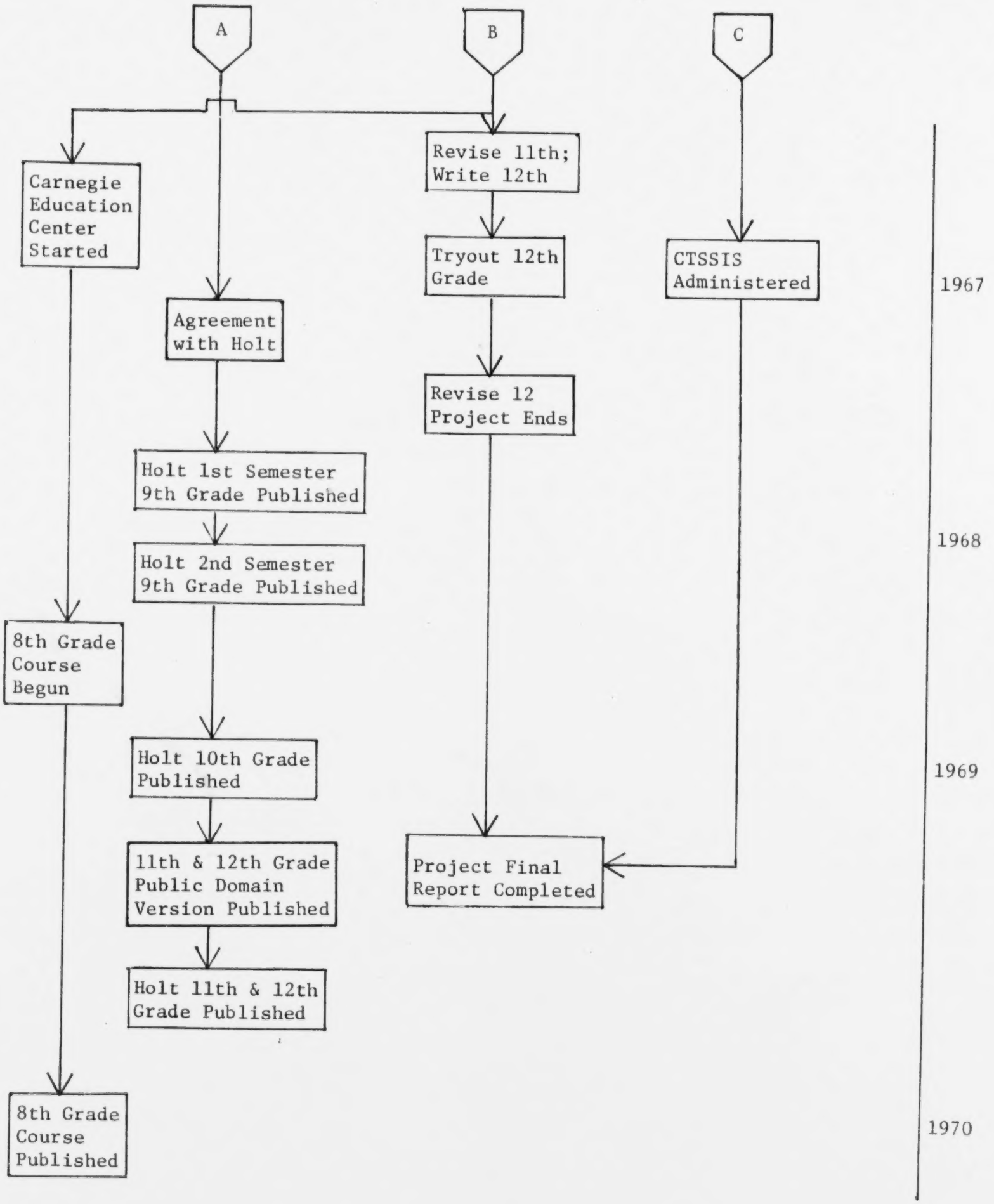
> The major associations of scholars from the universities, the National Council for the Social Studies, and a number of journals in the field have all urged new approaches to history and the social sciences in the schools.
>
> [Proposal, 1963]

Three major concerns were listed: the disadvantages of heterogeneous grouping in social studies classes, the lack of current knowledge in high school social studies materials, and the need to attract able students to the fields of history and social science. The lack of materials to meet these concerns was substantiated through the conclusions drawn by experts in economics, psychology, and anthropology who had reviewed materials in their field and found only a few appropriate sources for teaching their discipline at a high school level. The proposal also reviewed recently released materials, particularly in the field of history, and noted their shortcomings. Past efforts to change social studies curriculum through reform movements and committees had failed to produce materials to use in the classroom and a curriculum development project was proposed as an effective way to bring about change through new materials.

The proposal also explained how the new curriculum would differ from traditional social studies programs. It stated that traditional narrative textbooks often led to emphasis on memorization of facts and were not generally written with attention to sequence of learning or to the structure of the discipline. The new materials would include readings to discourage rote learning and would stress the mode of inquiry of the social scientist and historian. Dr. Fenton had found that students in the advanced placement history courses had responded favorably to such an approach and wanted the new materials to develop the inquiry process further. The new materials would also include evaluation instruments, which were lacking in most programs, and would be accompanied by teacher's manuals which would outline strategies for teaching the new materials. See Figure 1, beginning on the next page, for the major events in the history of the Holt Social Studies Curriculum.

Figure 1. Major Event Flow Chart




A
B
C
Carnegie Education Center Started
Agreement with Holt
Revise 11th; Write 12th
Tryout 12th Grade
CTSSIS Administered
Revise 12 Project Ends
Holt 1st Semester 9th Grade Published
Holt 2nd Semester 9th Grade Published
8th Grade Course Begun
Holt 10th Grade Published
11th & 12th Grade Public Domain Version Published
Holt 11th & 12th Grade Published
Project Final Report Completed
8th Grade Course Published
1967
1968
1969
1970

Funding for Product

As noted above, funds for the project came from the U. S. Office of Education. The total funds for the original grant and two supplements were:

Funds

Original Grant:	$250,000
Supplement	22,500
Audiovisual Supplement	92,000
	$364,500

Almost all of the funds were spent on staff salaries. Carnegie contributed office and working space. About 10 percent of the total budget was spent on supplies, duplicating expenses, etc.

PRODUCT DEVELOPMENT

Management and Organization

Development Agencies

Carnegie Institute of Technology (became Carnegie-Mellon University in 1967). The proposal stressed the experience of the faculty at Carnegie in curriculum development and the supportive atmosphere for such work. Carnegie, a school with about 5,000 students located in Pittsburgh, Pennsylvania, is best known as a technical institute, but it does have a small undergraduate teacher education program. However, it does not have a formal department of education, and many of the faculty in academic disciplines are involved in teacher training and curriculum development. Dr. Fenton is an historian and a professor of history, and yet has done extensive work in curriculum development materials for secondary schools. From 1958-1962 the faculty at Carnegie had been involved in 16 different projects related to curriculum development and teacher education and there was a climate of interest and support for this type of activity. The projects were funded both by private foundations and government sources and included Project English, a $220,000 curriculum development project funded by the Department of Health, Education and Welfare, and the Advanced Placement Program, a $191,000 project to develop advanced placement history and English courses for nearby secondary schools. Other projects included studies in economics, anthropology, and world cultures. Four of the staff available to assist with the project had worked on national curriculum development projects. Thus the faculty at Carnegie had previous experience in major curriculum development projects and could use this background to benefit the project.

Pittsburgh Public Schools. The Carnegie staff planned to work in cooperation with the Pittsburgh public schools to develop the new curriculum and the proposal listed some previous contacts between Carnegie faculty and the Pittsburgh Public Schools. Teachers from more than 30 high schools in the Pittsburgh area had worked with members of the history department to develop courses for the Advanced Placement Program, and more than 20 high school history teachers from Pittsburgh had attended summer institutes at Carnegie. Dr. Fenton had spent two years on three-quarter's

time leave from Carnegie to help the Pittsburgh Public Schools set up a program for able students. Other projects at Carnegie had also involved teachers in curriculum development, including Project English and the World Cultures Project. So the staff at Carnegie had worked with teachers in developing curriculum and had established a cooperative relationship with the Pittsburgh public schools.

Staffing Arrangements

Project Supervisors. Project supervisors were John R. Coleman (April 1963-November 1965) and Erwin Steinberg (November 1965-October 1967). The project supervisor devoted one-eighth time to the project and had overall responsibility for the project. Professor Coleman, Dean of one Division of Humanities and Social Sciences and Professor of Economics at Carnegie, was involved in developing the original proposal. He was also responsible for the accuracy of the content of the course on comparative economic systems and for some of the writing for this course and later authored the Holt version of Comparative Economic Systems. He left Carnegie during the second year of the project to take a position with the Ford Foundation. An important contribution of Dr. Coleman was the support he gave to curriculum development projects. Having only one-eighth time to spend on the project, neither project supervisor was a key staff member.

Co-Directors. The two co-directors for the project were: Dr. Fenton from Carnegie, Mr. John Soboslay (May 1963--September 1963), Dr. Howard Mehlinger (September 1963--June 1964), and Mr. John M. Good (July 1964--September, 1967) from the Pittsburgh Public Schools. The co-directors wrote most of the materials, coordinated the work of other project staff, and were active in dessemination activities, particularly through speeches and teacher training.

Dr. Fenton initiated and coordinated the project, recruited and supervised the other staff members, developed a rationale for the curriculum, and set high standards of quality for the materials. He did much of the course planning and writing himself and taught one high school class during three years of the project. Meanwhile he also taught one class at the university, directed NDEA Institutes, crossed the country giving speeches and wrote a methods book on the inquiry approach. During 1965-

1966 Dr. Fenton was on academic leave and visited social studies curriculum reform projects across the nation to gather information for a book, The New Social Studies, which was published in 1967. During this year he still worked approximately half time on the project. Much of his salary during the project was paid from sources other than project funds.

The co-director for the Pittsburgh Public Schools taught two high school classes each day and spent the rest of his time on the project. Forty percent of his salary was paid by the Pittsburgh schools and sixty percent was paid by the project. Dr. Fenton had hoped to appoint a co-director from within the Pittsburgh schools, but was not able to do so and recruited Howard Mehlinger for the position. Dr. Mehlinger had taught high school for 10 years and received his Ph.D. in 1963 from the University of Kansas. He was not available to start work when the project began in spring 1963, so Mr. Soboslay, a teacher in the Pittsburgh schools, was released from his classroom duties and began to plan for the development of the first year's course. Dr. Mehlinger arrived in the summer and assumed his duties as co-director. He helped develop and try out materials for the ninth grade course, but left after the first year to take another position. Dr. Fenton then recruited John M. Good, who had been highly recommended and also had experience as a teacher, to serve as co-director. Mr. Good continued as co-director through the end of the project.

Audio-Visual Director. In the fall of 1965 the center requested and received from the U.S. Office of Education a supplementary grant of $92,000 to produce audiovisual materials for the project. Mitchell Lichtenberg was selected to direct this aspect of the project. Mr. Lichtenberg had taught for five years, had been in the Harvard Master of Arts in Teaching program, and had previous experience in developing audiovisual aids. He had major responsibility (July 1965--August 1967) for the development of the audiovisual components and also taught a class in the Pittsburgh schools to try out materials.

Project Evaluator. Dr. Hall worked half-time as project evaluator during the first two years (July 1963--September 1965) of the project, while also teaching classes in the department of psychology. At the end of the second year Dr. Hall resigned to accept another position and sub-

mitted a report on the evaluation completed up to that point. The final report makes this comment on his resignation: "The project evaluator. . . found the co-directors so busy with other things that they failed to find sufficient time to consult with him. Hence, quite properly, he resigned at the end of the second year, arguing that his evaluation could never meet exacting standards." During the last two years the co-directors assumed responsibility for the evaluation and a new project evaluator was not appointed.

Administrative Assistant. Ethel Strasser efficiently managed most of the administrative details throughout the project. Her duties included answering correspondence, keeping account of funds, organizing a curriculum library, obtaining copyright permission from publishers, as well as typing and duplicating volumes of materials.

Cooperating Teachers From the Pittsburgh Public Schools. Each year a team of from five to eight high school teachers worked for six weeks during the summer at Carnegie to develop course materials and then used the materials in one of their classes during the next school year. A total of 25 teachers were involved over the four years of the project. They were paid during the summer from project funds according to their regular pay scale. During the school year the teacher did not receive any extra pay or released time. The teachers were selected jointly by the co-directors of the Center and public school administrators on the basis of educational background and experience.

The Center staff found that during the summer the teachers had to spend much of their time learning about the project and what had already been written and they had little time left over for development work. Another problem was that few of the teachers had the skills and training required to write materials and there was not enough time in the summer for them to develop these skills. However, some teachers did make valuable contributions to the curriculum. In retrospect the Center staff felt they should have used the summer as a program to train the teachers to use the curriculum rather than for a writing session, but they did not have enough time during the project to develop a training program.

During the school year the teachers did not have release time to

prepare critiques to be used in revising materials. Some of the teachers did prepare detailed commentaries on the lessons, but most of them only made general comments on the materials. The project directors had planned to visit teachers in classes but had little time to do so and gave up trying after the first year. Occasional meetings were held with the teachers, but generally they were not particularly helpful in providing specific suggestions for revisions. Basically the teachers did not have enough time to devote to the project to be a productive part of the development team, and the directors did not have the time to work closely with the teachers as had been originally intended. Individual teachers, however, did make major contributions, and having teachers try out materials provided valuable feedback on the most useful format of the teachers' guides.

Consultants. The project also used the services of seven subject matter specialists from Carnegie and three curriculum and evaluation specialists from the Pittsburgh Public Schools. Only a few of the consultants were paid for their services. The contribution of the consultants varied from only giving occasional advice to major contributions in the development of a course. Sometimes a consultant would suggest an outline which the staff would then use as a basic framework for a course. Although time and funds were not available, the staff would have liked to send drafts of the courses to specialists for review and criticism. The philosophy at the Center was that the faculty at Carnegie constituted an excellent resource and that spending a lot of money on outside experts was not an efficient use of funds. The staff preferred relying on the judgment of one or two outstanding consultants in each subject area to seeking advice from many consultants.

Work Atmosphere

The work atmosphere on the project was relaxed with decisions being made in an informal manner. Despite the heavy work load, there was a friendly relationship among the staff members and a commitment to what they were doing. All the staff members contributed to decision making, although Dr. Fenton was responsible for major decisions. In making decisions about the curriculum generally one person would have an idea, discuss it with other staff members, and then a joint decision would be reached. All

members of the staff, regardless of position, were encouraged to contribute their ideas. The administrative assistant would even bring in newspaper clippings or other ideas for readings. The permanent staff was small and an informal communication system worked well. The Center library and adjoining offices provided adequate work space for staff to meet and talk.

Original Development Plan

A plan for developing the four-year curriculum was outlined in the proposal. The plan was to develop one course at a time, starting with the ninth grade course. For each course the staff would develop the course materials in the summer, try them out in the Pittsburgh Public Schools the next year, and then revise them the next summer while also developing materials for the next course. This cycle would be repeated until all the courses were written. Each course would consist of student readings, audiovisual materials, teacher manuals, and student tests.

The development plan was based on the procedures used in the Advanced Placement Program in Pittsburgh and involved close cooperation between the university and the Pittsburgh Public Schools. The proposed staff for the project was one project supervisor at one-eighth time; two project directors, one from Carnegie and one from the Pittsburgh Public Schools, each at three-fourths time; a half-time project evaluator; and a full time administrative assistant. About 20 teachers from the Pittsburgh schools would be involved in writing and trying out materials. Also to be involved were a number of writers from universities, curriculum consultants from the Pittsburgh Public Schools, and subject matter consultants on Carnegie's faculty.

Each summer a team of high school and college teachers would develop the materials and then try them out the next year in approximately seven classes of able students. It was planned that the project directors would each teach one class per year and would assist the other teachers. The project directors had primary responsibility for developing and revising materials, for meeting with subject matter consultants, for coordinating the work of the teachers, and for planning the sequence of courses so one course would build on later courses. The project was to begin in spring

1963, and a three-day work conference of those involved would be held early in the project.

The materials were to focus on the inquiry mode of the historian and social scientist. Generally, they would consist of student readings, accompanied by teacher manuals with lesson plans, an audiovisual component, and supplementary materials. Published materials would be used when possible. A tentative plan for placing subject at grade levels was included in the proposal with courses in comparative economic and political systems, European history, a study of non-Western areas, American history, and electives in behavioral sciences and advanced placement European history. The nature of the materials was to be based on earlier work done for the advanced placement history courses. However, those courses depended on commercially available materials and did not undertake extensive writing of materials.

The proposal also included an evaluation section outlining the objectives of the evaluation and the procedures for conducting the evaluation. The objectives were: to determine if students learn as much of the traditional material and techniques with the new curriculum as they did with the old; to determine if students achieve the objectives specifically set for the new materials better than they do with the traditional curriculum; and to determine if students' attitudes toward history and the social sciences change. The design for the evaluation consisted of administering a combination of standardized and specially constructed tests to students taught with a traditional curriculum. The proposal also discussed the problems involved in such an evaluation, particularly the difficulty of obtaining adequate control groups, the problems in controlling variables such as teacher enthusiasm, and the lack of opportunity to measure long-term effects. The major emphasis in the evaluation effort was to be placed on the development of valid measures.

The evaluation was considered important, but the primary focus of the project was to develop materials for students. It was not designed as a study of the effectiveness of "inquiry" teaching or as a research study on the effect of the new curriculum. It was designed as a project which would produce materials and this was its intent from the origins.

Modifications of Original Development Plan

Three major changes were made from the original proposal. During the first year, when it became apparent that the staff could not handle all the work, the Center requested and received from the U.S. Office of Education a supplementary grant of $22,500 to hire additional teachers and professors to help prepare the tenth grade course. The staff realized at this time that their original plan had been overly ambitious, but did not seriously consider any major revisions in their plans or requesting a major increase in funding.

In the fall of 1965 the Center requested and received a second supplementary grant from the Office of Education to produce a complete audiovisual component for the project. This grant was for $92,000. The staff had tried to use commercially prepared audiovisual aids, but had found that most of them were designed for as wide a market as possible and were not appropriate for illustrating specific points. The only audiovisual aids available which used an inquiry approach were those developed by Dr. Fenton for a world history course. The staff had developed prototypes of transparencies, tape recordings, photo-essays, slide-tapes, and games, but did not have the resources to produce quality audiovisual aids. Even with the supplementary grant, resources were not sufficient to produce professional quality aids, but they were adequate for the staff to prepare an audiovisual component for the courses. A new staff member was hired to direct this aspect of the project.

The developers originally proposed to develop a one-year behavioral science course and a one-year Advance Placement European History course for the senior high school year. However, they requested and received permission from the U.S. Office of Education to alter their plans. They did not develop an Advance Placement European History course. Instead of a one-year course in the behavioral sciences, they wrote a semester course in the behavioral sciences and a semester course in the humanities.

Actual Procedures for Development of Product

Development

Except for the three modifications noted above, the actual development procedures corresponded closely to the plans outlined in the proposal.

During the four and one-half years of the project the staff developed four years of student and teacher materials, tried the materials in classrooms, revised them, and then tried them out again as originally scheduled. The courses for the ninth and tenth grade were released into the public domain in 1966 and the other two courses were released in 1967.

Although the project met its deadlines, the staff strongly felt that they attempted to do too much in too short a time with too few people. In the final report, they are frank about the problems encountered in developing a curriculum with insufficient resources. Perhaps the Center staff, confident of the success of the curriculum, was in a position in which they could feel free to admit some mistakes. The revised Holt version of the curriculum is now a major social studies program and is being widely used in all parts of the country. The Social Studies Curriculum Development Center at Carnegie has developed a system for continued development and revision of materials and the staff predicts that the Center will soon be self-supporting through revenue from royalties and grants. Now in a position of strength, the Center staff is open about the problems they encountered. Perhaps other reasons why the final report was able to show perspective were because it was not completed until a year and a half after the project ended and because the writers saw part of the value of the report as providing information which would help others in developing a curriculum. Thus the history of the development of the curriculum records the mistakes as well as the successes of the project.

The project final report includes an account of the events during the first year of the project which dramatically illustrates the problems encountered in attempting to develop the curriculum. The grant was approved in May 1963, but the two co-directors had job commitments and could not begin work until mid-June. Mr. Soboslay from the Pittsburgh schools started organizing the project and a meeting was held in June for all project staff from Carnegie and the Pittsburgh Public Schools. Work on the course for the first year was not begun until July and for the next two months the co-directors, six teachers, and a few graduate students worked on the first course. Developing materials took much longer than had been expected and by the opening of school only three-quarters of the first semester's course was finished. The remainder of the course and all of the second semester

course had to be developed during the school year. The year was a race against deadlines. According to the final report,

> . . . the ditto machine was sometimes only a week or so ahead of the students. No wonder the materials needed substantial revision at the end of the year! (Fenton, 1969)

The following summer offered no relief. Not only did the ninth grade course need revision, but the tenth grade course had to be written--all in two months! The final report includes this comment:

> Every other year proceeded at a similarly desperate pace. It proved difficult to develop a sequential and cumulative curriculum in this fashion. . . The pace we set for ourselves seriously detracted from the successful accomplishment of our objectives with the time we had allotted to the project. (Fenton, et al, 1968, p. 21, p. 13)

The report also states that developing two years of curriculum over four years would have been a more practical plan.

Despite the hectic schedule the staff was able to complete the courses as planned. The procedures for developing courses varied, but generally the staff would ask a subject matter specialist, such as a history or economics professor, to prepare an outline for a course including the major concepts of his discipline. The staff would then elaborate on the outline and decide on topics for the readings. The Center had an extensive collection of social studies materials from publishers and other projects which the writers would draw on for ideas and readings. Often, appropriate materials at the high school level were not available and writers searched through books, scholarly works, and primary and secondary sources for readings. Accounts of human behavior, such as excerpts from diaries, letters and eye witness accounts, brought the most response from students and were used when appropriate. The writers found that various members of the Carnegie faculty were helpful in making specific suggestions for sources of readings and consulted them frequently. Sometimes the writers would take selections directly from books or other sources, in which case the Center would write the publisher and request permission for limited duplication in an experimental program. They would rewrite some materials to adjust to the reading level of the students and to fit the needs of the course. Other readings had to be written especially for the curriculum,

such as historical essays to link sections of the courses. Overhead transparencies and tape recordings were used when they seemed to be the most appropriate medium for teaching the objective of a lesson. For example, tape recordings of political speeches seemed most appropriate for teaching students to analyze oral messages. Developing student materials was only a part of the task. The writers also prepared introductions for each reading, study questions, daily lesson plans for the teacher, tests, and supplementary reading lists. Developing good lesson plans required careful thought and it often took as long to write the teacher's lesson plans as it did to write the student materials.

It became apparent to the Center staff that curriculum development required special skills and sustained effort to develop quality materials. Curriculum writers needed to be able to combine knowledge in learning theory and subject content with the realities of the classroom. The project final report makes this comment on the qualifications needed for a curriculum developer:

> Curriculum development is no work for amateurs. Social scientists from universities often turn out unworkable units because they tend to write for other scholars, they do not know learning theory, and they have not faced elementary or high school students for a full daily schedule over a sustained period of time. In addition, many scholars who have had no contact with educational literature have narrow objectives--to produce children who know a discipline well--rather than the sort of broad and more appropriate objectives which are described in the second section of this Report. Moreover, a series of units written by different scholars seldom combine into a course, never mind an integrated curriculum covering several years of work, without major overhauling. Nor can typical classroom teachers write curriculum well. They lack preparation as professional writers, as scholars on the frontier of a discipline, and as experts in learning theory. Curriculum development is a new academic specialty (Fenton, et al, 1968, p. 18)

The rationale for the curriculum gradually evolved over the development period based on the research findings of other educators and on the experiences of the staff as they developed and tried out materials. Before the project began Dr. Fenton had prepared a plan for a social studies program for able students and this plan served as the basis of the rationale. Some aspects remained the same over the four years of the project, such as the need for a cumulative curriculum. Thinking on other points, such as the use of discovery exercises, changed during the course

of the project. The project final report recounts some of the research behind the rationale for the curriculum.

The objectives of the curriculum were based on the notion that we live in a complex, changing society and that it is important that students learn how to conceptualize and analyze new situations. The work of Jerome Bruner on students' ability to think is used to support the idea that students are capable of developing such skills. Teaching students the structure of the disciplines of history and the social sciences was seen as a way of providing students with a framework for analyzing society. The project staff turned to the work of Joseph Schwab for a definition of structure. Schwab defines structure as two parts:

> . . . the body of imposed conceptions which define the investigated subject matter of that discipline and control its inquiries

and

> . . . the pattern of its procedure, its method, how it goes about using its conceptions to attain its goal.

To identify the concepts of the discipline the staff reviewed the literature in this field, particularly the work of Hanna and Lee on generalizations and the work of the Syracuse Social Studies Curriculum Center and Lawrence Senesh on concepts. The staff decided to focus on concepts, but since there was no general agreement on one list of concepts for the social sciences, they developed their own system for categorizing concepts and identified "analytic concepts" which they used as a base for the curriculum. These concepts were selected for their appropriateness for the students and their usefulness as a basis for generating questions, as indicated by the research of others and the classroom experiences of the Center staff.

As the staff attempted to define the methodological objectives of the curriculum, they turned to the work of Bloom, Mager, and others on behaviorally stated objectives. At first they used Bloom's taxonomy as a source for the cognitive objectives for the curriculum, but later formulated their own scheme of objectives to define the methodology of the social sciences. These objectives stressed the importance of making and testing hypotheses and was used as the source for inquiry skill objectives

for each lesson.

A review of the literature was also influential in shaping the thinking of the staff in the area of attitude and value objectives. Bloom's taxonomy of affective objectives was useful, as was the work of Hess on formation of political values of children, Friendenberg on the development of value systems by adolescents, and Oliver and Shaver and Rath's on dealing with value issues in the classroom. The staff became convinced that value clarification and attitude formation should be an important part of the curriculum.

The staff also built on the work of others in selecting teaching strategies. Originally the staff favored a "discovery method," as had been defined by Bruner and as had been tested by Massialis and Zevin. But after trying out the discovery approach in the classroom the staff decided to modify this approach and developed a mode of directed discussion. Directed discussion seemed to them more effective in teaching the steps in the inquiry process and developing a more sophisticated thought process on the part of students. Discovery exercises were still included in the curriculum, but directed discussion received primary emphasis. The staff also researched the appropriateness of various types of materials and learning sequences and tested their ideas in classroom tryouts.

The evolution of the rationale has been described to illustrate how the ideas of other educators influenced the development of the curriculum. There was no formal "review of the literature" as part of the project, but the staff was expected to keep current on research being done and to apply new knowledge to their own work. The project staff felt that a background in learning theory is important in curriculum development work.

Each course had three versions. The first version consisted of ditto sheets which were used for the first classroom tryout--this version generally had major revisions. A second version was then reproduced on a mimeograph machine for teachers to continue to use. It contained minor revisions. A third version was printed as a large stapled booklet by a local printer and became part of the public domain. This booklet was intended for the teacher and just included references to the readings which were copyrighted. It was unpolished and not suitable for widespread classroom

use because it did not contain all the required readings. The developers were unable to print the text of many readings in the public domain version because the publishers of these articles quite properly asked for fees in return for permission to print.

The Holt Social Studies Curriculum is a substantially revised version of the product curriculum and can be considered a direct outgrowth of the earlier materials and a fourth version of the curriculum.

The final report was not completed until April 1969, a year and a half after the project was completed. During this period the staff was busy preparing a revised version of the curriculum for publication by Holt, and as their main goal was to produce materials and get them into the classroom, they postponed the final report. The final report is a refreshingly frank document in which the project staff list their mistakes as a caution to future curriculum developers. They saw their major mistakes as trying to do too much in too short a time, as not having enough staff, and as not having sufficient funds to prepare a quality product. They further felt they should have developed their rationale in more detail before they started developing materials, since some crucial issues were not resolved until late in the project. Finally, they viewed their poor planning and lack of coordination in the evaluation as a mistake.

Formative Evaluation

The Pittsburgh Public Schools cooperated in the development of the curriculum and provided teachers to help develop and try out the materials. In turn, the schools received free copies of the experimental materials, training for the teachers, and some free teaching by the project staff. Dr. Fenton had worked with the Pittsburgh Public Schools in developing Advanced Placement courses and in setting up a Scholar's Program for able students, so he was able to arrange to work with the Pittsburgh Public Schools in developing a new social studies curriculum. The program was taught in five Pittsburgh high schools to classes of able students. About eight classes were used each year to test new courses. Five to eight teachers were involved in the writing and tryout each year and generally each teacher only taught one class of able students. During most years two members of the Center staff or other Carnegie faculty taught one class

each. Experimental materials were also tried out by a few interested teachers in Ladue, Missouri.

The Center staff felt that the teachers responded enthusiastically to the inquiry approach, and although the staff were not able to spend as much time with the teachers as they wanted, they felt that they had a good relationship with them. The students also responded well to the program and over the four years of the project no students asked to be dropped from an experimental class. School administrators were cooperative and the Center staff did not encounter any major problems in teaching part time. However, there were problems in dealing with district administrators. The superintendent gave complete support to the project, but some of the other district personnel did not. These district personnel were older than the Center staff and favored a more traditional curriculum with more focus on content. They did not seem to support the objectives of the new curriculum or see the need for new materials. At times it seemed that some district personnel would delay or block efforts of the project staff, which caused strain between the two groups and which resulted in the staff attempting to by-pass them.

The Center staff felt that the trial of materials at an early stage of development was a vital part of their project and that all curriculum developers should test their own materials in the classroom. By trying out the materials themselves the developers obtain direct feedback and can discover the strengths and weaknesses of their course. The Center staff kept records as they taught to use as a basis for later revisions. They noted how students responded to the materials, how well suited they were to the objectives of the lesson, and the adequacy of the lesson plan for the teacher. The final report makes this strong statement on the importance of the developer teaching his own material in the classroom:

> We are convinced that every professional member of the staff of a curriculum project should teach his material in the classroom. He need not teach a full schedule; our staff members usually taught only one high school class a day. Nor need all staff members teach every year, although one person should do so in order to work toward the achievement of a clearly articulated sequence of courses. For others, one year's experience proved a generous dose of reality. The payoff in both a better revision of the material being taught and a more

> realistic first draft of future student material and lesson plans is well worth the price. We also believe that teaching in the schools helps to win teacher acceptance for the work of a curriculum center. Audiences of teachers to which we have spoken have often been surprised to learn that project directors actually teach students and they have been impressed by what they interpret to be the serious and practical effects of their doing so. (Fenton, et al, 1969)

The school trial was important in providing feedback from teachers, particularly on the problems the teachers encountered as they began to try out the new materials. Early in the project it became clear that teachers felt more comfortable when they had detailed lesson plans to follow with specific suggestions on how to conduct each lesson. Improvements were made in the lesson plans in response to teacher reactions. For example, during the first two years objectives were stated in terms of Bloom's taxonomy which ranks skills and abilities according to relative difficulty. The lesson plans included objectives taken from Bloom, such as "Analysis," "Translation," and "Evaluation." These objectives did not seem to communicate to the teachers and did not distinguish between general skills and their application in the social studies. The staff developed their own model of objectives for the social studies and tried stating objectives in terms of this model in the lesson plans. See Appendix A for examples of objectives in lesson plans. They found that this type of objective was meaningful to the teachers and continued to use this mode for stating objectives.

SUMMATIVE EVALUATION

During the first two years of the project an evaluation was done on preliminary versions of several of the courses using standardized tests administered to experimental and control groups. The only test on which the experimental group made significantly greater gains was The Test of Economic Understanding. The Center staff felt that the standardized tests were not measuring the goals of the new curriculum and discontinued the use of standardized tests after the second year. They then designed a test to measure the goals of the new curriculum, The Carnegie Test of Social Studies Inquiry Skills. This test was administered as a posttest

to control and experimental groups of eleventh grade students. The experimental group had used the curriculum for three years. On this test the experimental group scored significantly better than the control group.

Several problems were encountered in the evaluation study and the Center staff was dissatisfied with the way the study was conducted. One of the problems with the evaluation was the lack of resources to conduct a thorough evaluation. The project co-directors were too over-burdened with other tasks to coordinate their efforts with the work of the project evaluator and not enough time was spent early in the project in designing the evaluation study. A group of standardized tests was selected jointly by the project directors and evaluator, but after using the tests the staff felt that these tests were not appropriate for measuring the goals of the new curriculum. Another major problem was that the curriculum was not ready for a summative evaluation since at the beginning of the project the goals of the curriculum were not yet clearly defined. The materials were still under development and the objectives were still evolving and the staff felt the curriculum was not in sufficiently finished form to justify the type of evaluation attempted during the first two years. The Center staff did develop a test during the end of the project to measure the goals of the curriculum and feel that it provided a better indication of the effects of the curriculum than the standardized tests. Throughout the project the primary concern was on developing materials and not on conducting a research study, which accounts for the fact that more resources were devoted to development and diffusion than to evaluation. It should be pointed out that the Holt Social Studies Curriculum, the modified version of the Carnegie Social Studies Curriculum on which the following evaluations were performed, was never evaluated.

Evaluation Using Standardized Tests

The project's final report includes the results of the evaluation done during the first two years on the ninth and tenth grade program. The students in the study were selected from the Pittsburgh high schools using the curriculum. Students were required to have a minimum Otis IQ of 115, although a few with IQ's below this were admitted on the basis of strong teacher recommendation. Working with such an able group of youngsters

created a problem in the evaluation because the students scored so high on the pretests that it was difficult to discriminate among the top students and to measure gains. Students were randomly assigned to experimental classes or to classes using a standard social studies curriculum and an attempt was made to match teachers according to education and experience. The control group received no special training, but the experimental teachers helped develop materials at Carnegie during the summer.

Ninth Grade. In the second year of the project the revised version of the ninth grade course was taught to an experimental group of 230 students and the standard ninth grade program was used with a control group of 233 students. The following tests were administered two or three times during the year: The Sequential Test of Educational Progress in Social Studies, the STEP test, designed to measure certain social studies skills; The Peltier-Durost Civics and Citizenship Test, which tests content taught in traditional civics courses; the Watson Glazer Critical Thinking Appraisal, a test of general skills and not particularly related to the social studies; and the Test of Economic Understanding. The only test on which there was a significant difference between the two groups was the Test of Economic Understanding on which the experimental group performed significantly better. This was expected since the new curriculum emphasizes economics. It was notable that the experimental group did almost as well as the control group on the test based on the content of traditional civics courses. A brief evaluation was also done during the first year on the unrevised ninth grade courses, but was inconclusive.

Tenth Grade. A group of 68 students in the experimental group and 65 students in a control group were used for evaluating the unrevised tenth grade course. They were given these tests two or three times during the school year: The STEP Social Studies Test, Level 1; the Iowa Tests of Educational Development, Text 5--Ability to Interpret Reading Materials in the Social Sciences; the Test of Economic Understanding; and the World History Test. There were no significant differences between the two groups on these tests. The World History Test had been included to see if students using the experimental curriculum were learning the kind of information they might need for the College Board Examination or other tests and the

Center staff was pleased that the experimental group did about as well as the control group.

Evaluation Using Product Development Tests

The Center staff felt that the standardized tests were not measuring the goals of the new curriculum and decided to design a test which would measure the objectives of the program. The two co-directors identified the skills they wanted to measure and developed items which they felt would measure these objectives. They administered the items to about 50 twelfth grade students who had been in experimental classes and conducted an item analysis on the results. On the basis of this tryout, they selected 50 items for the test. On 10 of the items the students match terms with definitions and the other 40 are multiple choice items (called the Carnegie Test of Social Studies Inquiry Skills--CTSSIS). The authors do not claim that the test measures a student's ability to conduct independent investigations using inquiry skills, but that it does measure the skills the student would need in order to do so.

The test attempts to measure these behaviors:

1. The ability to recognize definitions of procedural concepts (e.g. hypothesis, concept, generalization, fact) used in a mode of inquiry. (10 items)

2. The ability to recognize problems which can be solved by use of a mode of inquiry as opposed to those which cannot. (5 items)

3. The ability to recognize problems of interpretation as opposed to problems of finding data only. (5 items, the same used to measure behavior #2)

4. The ability to recognize the social science concept with which a question or hypothesis is associated. (10 items)

5. The ability to recognize statements which follow logically from a hypothesis as opposed to those which do not. (5 items)

6. The ability to recognize sources which would be more likely to yield data for testing a hypothesis as opposed to those which would not. (5 items)

7. The ability to recognize data which is relevant to a hypothesis as opposed to that which is not. (3 items)

8. The ability to recognize generalizations which summarize data or can be inferred from data as opposed to those which do not. (4 items)

9. The ability to recognize statements of fact which are likely to be accurate as opposed to those which are not. (3 items)

10. The ability to recognize when new data requires modifying a hypothesis. (5 items)

11. The ability to recognize an appropriate modification of a hypothesis which accounts for new data. (5 items, the same used to measure behavior #10)

(Fenton, et al, 1969, p. 69)

The items of the test are derived from the inquiry approach and include items such as:

- ". . . choose the one question which you think will prove to be most fruitful as a beginning point of an inquiry which can develop a valid generalization. . . "

  A. Is integration of the public schools good?
  B. Will the Russians win the Cold War?
  C. What sort of people did Louis XIV appoint as political leaders?
  D. When did Columbus sail?

- If the hypothesis, "The stock market crash of 1929 caused the depression," is true, you would find all of the following facts or generalizations supported by the data EXCEPT:

  A. The number of housing starts continued to decline at the same rate after October, 1929.
  B. After the stock market crash of 1929 businessmen began to cut back production.
  C. Unemployment increased after 1929.
  D. The average price of stocks declined rapidly some time during 1929.

- ". . . choose the one (source) most likely to yield useful evidence. . ."

  The Kaiser's extreme nationalist feelings caused him to make decisions that increased the possibility of war in 1914.
  A. diplomatic correspondence between the Kaiser and other European rulers in 1914.
  B. newspaper editorials from German language newspapers in 1914.

C. the Kaiser's public speeches and private memoranda during the period just before and during the outbreak of hostilities.
D. the Kaiser's letters to his wife during 1914.

o Which of the following persons seems least likely to have a bias about the cause of race riots?

A. a local police officer
B. a correspondent for a Negro newspaper
C. a British visitor from a small town in Yorkshire
D. an officer of the American Civil Liberties Union

o Suppose you had begun with the hypothesis, "In the nineteenth century, China turned its back on the West and all it stood for," and then found the following statement written by a Chinese official in 1852. What would you do with your hypothesis?

> "Everything in China's civil and military systems is far superior to the West. Only in firearms must we catch up."

A. I would not change my hypothesis.
B. I would change my hypothesis to: "China was anxious to adopt western ways."
C. I would change my hypothesis to: "China was anxious to learn western technology, but little else."
D. I would change my hypothesis to: "China felt inferior to the West, so it turned its back on western ways."

(Fenton, et al, 1969)

In the last year of the project, the CTSSIS was administered as a posttest to an experimental curriculum group of 112 students and to a comparison group of 78 students. The test was given at the end of the eleventh grade after the experimental group had completed three years of the curriculum. All the students attended two high schools where experimental and comparison groups had been maintained for the four years of the project.

An analysis of covariance was done on the test scores with the following results and conclusions:

Analysis of Covariance Results

Variable	Regression Coefficient	t-statistic
I.Q.	.4162	6.996*
Effect of experimental curriculum	5.8484	6.038*
Constant	-30.315	
Coefficient of variation = .3040*		

*Significant beyond the .01 level

(Fenton, et al, 1969, p. 70)

(1) Students who had taken the experimental curriculum scored significantly better on the test than students who had been in the comparison groups. Given students of equal I.Q. scores, those who take the experimental curriculum average nearly six points better on the test than those who take the regular curriculum. This difference in scores is highly significant statistically (beyond the .01 level).

(2) A student's I.Q. as measured by the Otis test is also related to performance on the Carnegie Test of Social Studies Inquiry Skills. This finding probably reflects the heavy dependence of the test on verbal skill, even among this group of students selected basically because of better-than-average I.Q.

The emphasis of the Carnegie curriculum on inquiry objectives apparently paid off. An item analysis of the CTSSIS revealed that the students in experimental sections performed better than students in comparison sections on every behavior tested, except behavior No. 5, the ability to recognize generalizations which follow logically from a hypothesis. All items discriminated between experimental and comparison students except in this section of the test. The experimental students performed significantly better than comparison students on at least two items in every section of the test, except on those which tested the ability to recognize the logical implications of hypotheses. The gains of the experimental students, therefore, were not registered primarily in those sections where knowledge of a technical vocabulary was required.

(Fenton, et al, 1969, p. 71)

Two of the main goals of the curriculum are in the area of attitudes and values, but the staff was not able to develop instruments for measuring

the impact of the curriculum in these areas. However, a questionnaire was administered to students with the following results reported in the project final report:

> A questionnaire was administered to students who had taken the experimental curriculum to determine their attitude toward the new courses. The questionnaire allowed the students to respond freely to the various questions asked; consequently, no quantifiable data were obtained. However, an analysis of the student responses revealed that only two students preferred the regular curriculum to the experimental curriculum. Most of the students who responded to the questionnaire stated that the emphasis on inquiry was the new curriculum's major strength. Many stated that they preferred the curriculum for this reason. Many students also stated that they felt the new curriculum did not give them enough "facts." They believed that they could not perform well on standardized tests, despite evidence that they performed as well as the comparison students. About fifteen percent of the students who responded to the questionnaire responded that the project courses had helped formulate their plans for college, all of these stating that they intended either to take more history and social science courses and most of these indicating that they intended to major in one of the social sciences. About thirty percent of the students indicated that social studies had been their favorite course in high school. (Fenton, et al, 1969)

DIFFUSION

Agency Participation

The Carnegie Social Studies Curriculum Center, Carnegie-Mellon University (i.e., the developer) conducted diffusion activities during the four year project. Holt has conducted the diffusion activities for the modified version of the Carnegie Social Studies Curriculum--the Holt Social Studies Curriculum.

The Carnegie Center staff regretted not working with a publisher from the beginning of the project. If they had begun to work with a publisher earlier, they could have established a more cooperative relationship and both sides could have contributed to the planning so as to avoid problems in making major changes after the curriculum was developed. Also, it would have enabled them to have benefited from the knowledge of the publisher on production and would have enabled them to get the materials published much faster. It could have relieved the writers of

duties such as copy editing, which the writers had to do as part of the initial project. And perhaps it might have avoided some of the problems which arose between the Carnegie Center and Holt. The major issue was control. The Center wanted to maintain control over the content and protested when the editors made author decisions. A legal battle was waged before the issue of control was resolved. The problems were intensified by the turnover of publisher staff. The editorial job on the curriculum was more complicated than for the regular textbook because of the various components of each course and because of the sequence between the courses. Editors required special training in the rationale of the curriculum and the Center staff devoted a great deal of time to training new editors. The Center staff and Holt personnel worked through these problems, and contracts for the second edition of the Holt Social Studies Curriculum specifically give final editorial decisions to the authors and the General Editor rather than to the publisher or his representatives. However, some of these problems might have been avoided if the Center had begun to work with a publisher at an earlier stage.

Diffusion Activities

Diffusion activities of the Carnegie Center. Dissemination efforts were carried out through different channels throughout the four-year project. Center staff answered requests for speakers whenever possible and estimated that they made a total of 250 speeches in 35 states between May 1963 and October 1967. The staff felt that these speeches both informed others of their work and also benefited them since the questions raised when they spoke gave them new ideas and helped clarify their own thinking. The staff also wrote journal articles on their work and sent out reprints of these articles. Dr. Fenton wrote two books which were of major importance in explaining the inquiry approach to teachers and other educators. They were: Teaching the New Social Studies in Secondary Schools: An Inductive Approach, a methods book for teacher training published in 1966, and The New Social Studies (1967), a report on the activities of the social studies curriculum reform projects underway across the country. Dr. Fenton

also served as chairman of a conference held in 1964 for the directors of other social studies and English curriculum projects in which they discussed their work and procedures. Center staff were also extensively involved in teacher training during the project. Approximately 400 teachers attended summer NDEA Institutes at Carnegie and 56 teachers studied for a year at Carnegie as part of the Experienced and Prospective Teacher Fellowship Program. These teachers were not trained specifically to use the new curriculum, but they did learn about the curriculum and many took ideas back to their own schools and classrooms. The staff also made 12 kinescopes demonstrating the use of the curriculum. Six were made in 1964 with funds from the Ford Foundation and showed Dr. Fenton teaching an experimental class using inquiry teaching techniques. The other six films were made in 1967 at the end of the project and illustrate the use of audiovisual aids as part of the curriculum. Finally the Center answered requests for information and distributed reprints of articles and other information. Despite the heavy demands on their time, the staff undertook these dissemination efforts because they felt it was important to keep others informed of their work.

Publication of materials. The U.S. Office of Education was still deciding on a general policy on publication procedures for products of projects they funded when the curriculum materials for the first courses were completed. So there was a year and a half delay between when the ninth grade course was completed and when arrangements could be made to have this and the other courses printed. The U.S. Office of Education established the policy that the materials should become part of the public domain, and so the courses became part of the public domain and were printed by General Systems and Graphics, a Pittsburgh company. General Systems and Graphics took a financial risk printing public domain materials, but did sell from 400-1,000 copies of each of the courses by February 1969. The Center staff was in favor of the public domain policy because it enabled them to make the materials quickly available to others interested in their work.

Shortly after the public domain version was released, negotiations began with publishers to produce a revised version of the curriculum for commercial publication. Four publishers submitted bids and Holt, Rinehart and Winston, Inc., was selected. Holt had published a major high school

social studies program already, but felt their current program was outdated and was looking for a new curriculum. Dr. Fenton had published his two books on the new social studies through Holt and had established a good relationship with a Holt representative. This was an important factor in selecting Holt as publisher for the curriculum. It was also important that Holt agreed to certain stipulations made by the Center. The Center felt that because the curriculum used a different approach than traditional textbooks, it was necessary for the publisher to provide special introductory materials and assistance for teachers using the curriculum. They required that the publisher be willing to distribute short experimental units as part of the promotional effort and also be willing to hire field representatives to visit schools and explain the program. The Center included these stipulations to help ensure that the dissemination of the program would be successful and Holt agreed with these conditions.

Diffusion Activities by Holt

The materials needed extensive revision before they could be published and Holt made a sizeable investment in this effort. Ten members of the curriculum staff and four Carnegie history professors worked on the revised materials. The amount of revision necessary varied with the course. For all courses the conceptual organization remained much the same, but new materials were selected which would be appropriate for the average student. Some courses, especially the behavioral science course, used almost entirely different materials, while others, such as the humanities course, used about three-fourths of the same content. The published version of the curriculum was not tried out in the classroom, but in all but one case the materials were revised by a staff member who had taught the course. The staff would have preferred a field test of the materials before they were published, but they wanted the curriculum to be published quickly and a field test was not financially feasible. They also felt that the curriculum, although not exactly like the one tried in the schools, was similar enough to benefit from the earlier school tryouts. The royalties for the materials were divided among the authors, which gave the authors an incentive for working on the curriculum and an interest in the future of the program. The group

of authors decided to contribute 15 percent of the royalties to Carnegie to support continued curriculum development work. The royalties from the distribution of the teacher training films were already being returned to Carnegie.

Many teachers, administrators, and other educators were already familiar with Dr. Fenton and the work of the Center when commercial materials became available. Interest in the curriculum had been aroused through the dissemination efforts of the Center staff over the previous five years. Holt capitalized on this interest and conducted an intensive promotional effort to introduce the Holt Social Studies Curriculum. They distributed nearly 50,000 copies of experimental units from the curriculum before it was published. The experimental units were short student and teacher booklets which contained about two weeks of material taken from ninth, tenth, and eleventh grade courses. The units also included questionnaires for the teachers to fill out and return to get an indication of their response. In addition, two full-time field representatives were hired to generate interest in the program. The field representatives were experienced teachers who traveled across the country visiting schools and talking with teachers about the curriculum. Holt has continued to employ one or two field representatives to assist teachers in the implementation of the program. The courses were published between fall 1967 and fall 1969.

Product Characteristics and Other Factors Affecting Diffusion

One important aspect of the Holt Social Studies Program was that it was a profitable item for the book salesmen. The program was not just one book, but a four-year curriculum series which included an audiovisual component and tests as well as textbooks and teacher guides. Also, the curriculum was a new type of program which reflected the latest trends in the field of social studies. Thus, Holt generated interest in the program through the experimental units and field representatives, the salesmen were motivated to sell the program, and the field representatives were available to assist in implementation. Their efforts were successful as the curriculum has sold widely since its introduction. The total sales from 1967 to 1970 has been approximately $3.5 million.

Characteristics of the product itself were also important. First the curriculum was in the form of hardbound books, recognizable as textbooks, which could replace previous books. The topics dealt with in the books were similar to those in traditional textbooks, which made teachers comfortable with the new materials. In addition, the course sequence was planned to capitalize on the background of teachers who generally teach each grade. The detailed teacher's guide also made the courses more acceptable to teachers and enabled the implementation of the curriculum without extensive teacher training. The audio visual component, although considered an integral part of the curriculum, could be bought separately so schools would not reject the program because they could not afford the audio visual unit. The price of the textbooks was kept competitive to encourage sales. Many of these features had been purposely planned to make the curriculum more acceptable to the schools.

Another indirect, but important, aspect of dissemination should be noted. This is the influence of the Holt curriculum on other materials which were subsequently released by other publishers. Some of these materials resemble the Holt curriculum both in physical layout and organization of content more than they resemble traditional textbooks. For example, the use of introduction and study questions before each reading has been used in other programs, as has the Holt format for the teacher's lesson plans. The Holt curriculum has in some respects served as a model for other social studies programs and represents a break from traditional social studies textbooks.

ADOPTION

Extent of Product Use

As noted above, from 400 to 1,000 copies of each course of the Carnegie Social Studies Curriculum were sold by 1969. Holt then distributed about 50,000 copies of experimental units of the Holt Social Studies Curriculum. Total sales from 1967 to 1970 of the Holt curriculum has been about $3.5 million. Certainly, large numbers of students located throughout the United States have used the Holt Social Studies Curriculum during the last three or four years.

Installation Procedures

No unusual physical arrangements, equipment, or classroom organization is required. Teachers do not require special training. Detailed lesson plans in the teacher's guide, Fenton's two books, Holt's teacher training films, and Holt's consultation services are available, however. No in-service training is provided by either the developer or the commercial publisher. Some out-of-class preparation is required, but this does not require extra staff. Product modifications are possible and the teacher is encouraged to be creative within the guidelines of the program. Little administrative support or public relations effort is required, as the program is designed to fit right into the typical classroom.

FUTURE OF THE PRODUCT

The Carnegie Social Studies Curriculum Center continues to be involved in the development of the Holt Social Studies Curriculum. Currently, plans are being formulated for a revised second edition which will reflect the feedback the field representatives have gotten from teachers and what the Center staff have learned from other curriculum development projects. Specific changes being planned include lowering the reading level of the materials, adding an individualized dimension to the curriculum, improving the evaluation, and placing more emphasis on affective objectives. Some courses will be revised more extensively than others. In some cases, over 80 percent of the material will be new.

The Center is also involved in developing new curriculum materials. In 1966 the Carnegie Corporation granted funds to establish the Carnegie Education Center at Carnegie to focus on curriculum development in five subject areas including social studies. A new program was established for a Doctor of Arts degree which allows students to develop curriculum materials to satisfy the thesis requirement. Dr. Fenton actively recruited people for the history program and a recent group of eight graduate students jointly developed an eighth grade American history program for slow learners, benefiting from the experience of the Center on earlier curriculum work. During the first year of their graduate studies the students took academic courses and formulated a rationale for a slow learner series.

The next summer and the following year, they wrote and taught the materials, with each graduate student being responsible for one section of the course.

The course they developed reflects the earlier curriculum, but it differs in many respects, which illustrates that the Center is flexible and willing to try different approaches. This eighth grade course does utilize an inquiry approach. However, because the course has been designed for slow learning students, it does not use the sophisticated conceptual apparatus of the Holt Social Studies Curriculum. The title of the published course is The Americans. It includes a book, a workbook, an audio visual kit, an examination program, a teacher's manual, a rationale, and four teaching films. A second group of graduate students has written, tested, and revised a ninth grade course for slow learners whose subject is the American city. This course is now being edited and will be published in the fall of 1972. A third group of students is now testing a tenth grade course which examines life in five cities--London, Moscow, Peking, Mexico City, and Ibadan at three points in time: between 1000 and 1300, in the middle of the nineteenth century, and in 1970. This course will be published in 1973. A fourth group of students will begin to write an American history course for slow learners in February 1972. It should be published in 1974. This work is being financed by royalties accumulated in the past, by annual grants of $25,000 from Holt, Rinehart and Winston, and by other funds in the University. The Center hopes that it will soon be able to support itself through these and other royalties and grants from publishers. Fifty percent of the royalties are divided among the writers and other major contributors, thus giving the writers a continued interest in the course and hopefully an interest in revising later editions.

The Center has established a system for continued curriculum development through group efforts in a university setting. Through the graduate program it is training specialists in curriculum development who can combine a knowledge of learning theory and subject matter content with their classroom experience. It provides an institutional structure for revising existing materials and developing new programs. The Center has established a reputation for producing quality materials and, although it is associated with the inquiry approach, it has avoided becoming wedded to one rationale.

Rather, it remains flexible and willing to experiment to maintain the creativity necessary to develop materials and teaching strategies which will be most effective with different types of students.

CRITICAL DECISIONS

The following events are a good approximation of crucial decisions made in the seven-year history of the Holt Social Studies Curriculum. For each decision point, the following types of information were described: the decision that had to be made, the alternatives available, the alternative chosen, the forces leading up to choosing a particular alternative, and the consequences resulting from choosing an alternative.

Although an attempt has been made to present the critical decisions or turning points in chronological order, it must be clearly pointed out that these decisions were not usually made at one point in time, nor did they necessarily lead to the next decision presented in the sequence. Many of the critical decisions led to consequences that affected all subsequent decision making processes in some important way.

Decision 1: To Devote Major Efforts to Curriculum Development

Dr. Fenton is a professor of history, not education, and to devote a major part of his time to curriculum development would leave little time for scholarly research. However, administrators at Carnegie-Mellon University supported curriculum development projects and were willing to judge professors on bases other than strictly research. Dr. Fenton decided to commit himself to curriculum development as part of the four-year project and has continued to devote most of his time to this work. Dr. Fenton became a full tenured professor shortly after the curriculum project started, providing evidence that Carnegie-Mellon was willing to reward this type of endeavor.

Decision 2: To Seek USOE Funds

The U.S. Office of Education had placed a high priority on social studies curriculum development projects and funded many such projects during the middle 1960's. During the late 1950's and early 1960's, the general

concern in education was to meet the needs of the able students in order to compete with the rapid advances in science and technology being made by the communist nations. Thus, the climate was favorable for a project to develop a social studies curriculum for able students, and Dr. Fenton submitted a proposal for a curriculum project to the U.S. Office of Education.

Decision 3: To Develop the Curriculum in Cooperation with the Pittsburgh Public Schools

Dr. Fenton had worked closely with the Pittsburgh Public Schools in developing the Advanced Placement History Course and on planning a program for able students and helped to obtain some large grants of funds for the school districts. He thought that the teachers could make an important contribution to developing the materials and then Pittsburgh schools provided an excellent opportunity for testing the materials because able students were grouped together as part of a Scholar's Program. So, Dr. Fenton asked the Pittsburgh Public Schools to work with Carnegie on the project and they agreed. The teachers did not have enough time to make as major a contribution to course development as had been anticipated. The tryouts in the schools, however, were very valuable, and the Center staff became convinced that curriculum developers should try out their own materials in the classroom as part of the development process.

Decision 4: To Develop Four Years of Curriculum in Four Years

Dr. Fenton wanted to develop a sequential curriculum for all four years of high school. A four-year program allowed for continued development of skills and gradual introduction and reinforcement of key concepts. The U.S. Office of Education was offering grants of up to $250,000 for curriculum projects, and Carnegie submitted a proposal which undertook to develop four years of curriculum with a budget of $250,000, or about $60,000 per year. The Center staff found that they had underestimated the effort required to develop a four-year curriculum and were overworked during the project as they tried to meet their original goals on schedule.

Furthermore, extensive revisions were required after the four-year project before a commercial version was available.

Decision 5: To Conduct an Evaluation of the Curriculum

The Carnegie staff who prepared the project proposal thought an evaluation of the curriculum should be conducted and a half-time evaluator was included on the project staff. Unfortunately, the Center staff had too much to do and their first priority was developing and disseminating the curriculum and not evaluation. A comparative study of the curriculum using standardized tests was conducted during the first two years of the project and then discontinued because the staff did not feel the standardized tests were measuring the objectives of the curriculum. A test to measure the goals of the curriculum was designed and administered as a posttest and the experimental group scored significantly higher than the comparison group. The evaluation study was not of the high quality the Center staff would have preferred, but it was a question of priorities and allocation of resources and the staff decided to devote most of their energies to development, not evaluation. The Center would like to have sufficient funds to conduct a further evaluation of the program.

Decision 6: To Diffuse Through Many Channels and to Require a Major Promotional Effort by the Publisher

The Center staff felt they must create an awareness if the curriculum was to be implemented and despite a heavy work load devoted a substantial portion of time to dissemination activities. They also required Holt to conduct certain promotional activities. As a result, when the commercial materials became available there already existed a widespread interest in the materials. The experimental units and field representatives further generated interest in the curriculum.

Decision 7: To Develop a Commercial Version and to Continue Work with the Publisher

The materials developed during the project were not in a form suitable for widespread use. The Center staff wanted to get the materials into

the classroom and saw commercial publication as the best route. Holt wanted a new high school social studies program, but could not afford the type of development and classroom tryout which had been part of the Carnegie project. An agreement was made between the Center and Holt to develop a revised version of the curriculum. The revised version was published and has been widely distributed.

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APPENDIX A: EXAMPLES OF LESSON PLANS FOUND IN TEACHERS' GUIDE

HUMANITIES - ANCIENT ATHENS — Lesson Plan, Reading XX

THE GOOD SOCIETY - A SUMMARY

Subject Objective: to know Kitto's definitions of the social values of the Greeks, namely:

1) that the polis should be small, and therefore intimate

2) that the community should assume responsibility for the total well-being - economic, moral, aesthetic, political and social - of its citizens

3) that each individual citizen was expected to make a direct, personal contribution to the good of the entire group; therefore, the good society was composed of citizens who felt a strong sense of responsibility to the whole group.

Inquiry Objectives: to be able to decide if Kitto's generalizations about the Greek notion of the good society are supported by the evidence presented in earlier readings in the unit.

Affective Objectives: to begin considering the extent to which the community should assume responsibility for the total well-being of its citizens, particularly in terms of the specific aspects of life in which it should intervene as contrasted to those it should leave alone.

to begin considering the extent to which an individual's responsibility to the group should take precedence over his responsibility to himself.

Materials: Reading XX

Suggested Strategies:

According to Kitto, how did Greek social ideals differ from ours?

Work toward the subject objective of the lesson. The students should refer to specific passages in Kitto and indicate ways in which these ideals differ from our own. E.g., "Kitto says that the polis was supposed to look after 'the whole communal life of the people, political, cultural, moral - even economic'. (p. 98) Our society does this to some extent, but not to the extent that the Greeks did. For example, I don't think our society--certainly not our government--is as concerned about cultural life as must as the Greeks were."

Do you think the works of Pericles, Plato, and Sophocles support this point of view?

Work toward the inquiry objective. The students should refer to specific ideas expressed by these three men, and use them to judge the validity of the generalizations they have made.

A LATE RENAISSANCE ARTIST: BENVENUTO CELLINI

Subject Objectives: to know that Cellini was a self-centered, vengeful, passionate, and individualistic man who wished to excel over all others and who enriched his society with great works of art.

to know that Cellini's pursuit of his individual goals caused him to recognize no duty to others.

Inquiry Objective: to be able to develop hypotheses about Cellini's personal characteristics and about the society in which he lived, from facts recorded in his AUTOBIOGRAPHY.

Affective Objective: to establish additional criteria to define the limits of individualism.

Materials: Reading XXIV

Suggested Strategies:

GROUP WORK: Divide the class into five groups. Each group should answer the following questions from a specific passage in the reading:
1) What kind of a man was Cellini?
2) What did Cellini value?
3) What did Cellini's society value?
The Groups should be assigned the passages as follows:

GROUP A: 1st 2 selections, 117
B: Selection, 117-118
C: 2 selections, 118-119
D: Selection 119-120
E: Selection 120-121

Work toward the two subject objectives, having the students develop general statements from the specific incidents in the readings. The students should support their general statements with facts. Have each group report to the entire class. After each group has reported, work out general statements to answer the three questions.

Do you think that you would have liked Cellini if you had met him? What do you think of a society which supports--even encourages--a man like Cellini?

Begin working toward the affective objective. The students should be encouraged to state their personal preferences. Some of them may be attracted to Cellini because he is colorful. Others may be repelled by his failure to account for the feelings of others and the fact that he apparently had no control over his personal passions. Most students will probably agree that Cellini's society should have restrained him to a degree.

Do you agree with the Pope that "men like Cellini are above the law"? Shouldn't especially creative people like Cellini be given some privileges and freedoms that others do not have? Don't the restraints of society restrain creativity?

These questions are deliberately phrased in an argumentative fashion in order to stimulate thought about how much restraint on individual expression is desirable. Students should begin to develop criteria which will establish limits on individualism while still allowing freedom for the creative individual.

APPENDIX B

LIST OF PRODUCTS AND DEVELOPERS

The following is a list of products for which Product Development Reports have been prepared.

Arithmetic Proficiency Training Program (APTP)
Developer: Science Research Associates, Inc.

The Creative Learning Group Drug Education Program
Developer: The Creative Learning Group
Cambridge, Massachusetts

The Cluster Concept Program
Developer: The University of Maryland,
Industrial Education Department

Developmental Economic Education Program (DEEP)
Developer: Joint Council on Economic Education

Distar Instructional System
Developer: Siegfried Engelmann & Associates

Facilitating Inquiry in the Classroom
Developer: Northwest Regional Educational Laboratory

First Year Communication Skills Program
Developer: Southwest Regional Laboratory for
Educational Research & Development

The Frostig Program for Perceptual-Motor Development
Developer: The Marianne Frostig Center of Educational Therapy

Hawaii English Program
Developer: The Hawaii State Department of Education
and The University of Hawaii

Holt Social Studies Curriculum
Developer: Carnegie Social Studies Curriculum Development Center,
Carnegie-Mellon University

Individually Prescribed Instruction--Mathematics (IPI--Math)
Developer: Learning Research and Development Center,
University of Pittsburgh

Intermediate Science Curriculum Study
Developer: The Florida State University,
Intermediate Science Curriculum Study Project

MATCH--Materials and Activities for Teachers and Children
Developer: The Children's Museum
Boston, Massachusetts

Program for Learning in Accordance With Needs (PLAN)
Developer: American Institutes for Research and
Westinghouse Learning Corporation

Science--A Process Approach
Developer: American Association for the Advancement of Science

Science Curriculum Improvement Study
Developer: Science Curriculum Improvement Study Project
University of California, Berkeley

Sesame Street
Developer: Children's Television Workshop

The Sullivan Reading Program
Developer: Sullivan Associates
Menlo Park, California

The Taba Social Studies Curriculum
Developer: The Taba Social Studies Curriculum Project
San Francisco State College

The Talking Typewriter or
The Edison Responsive Environment Learning System
Developer: Thomas A. Edison Laboratory,
a Subsidiary of McGraw Edison Company

Variable Modular Scheduling Via Computer
Developer: Stanford University and
Educational Coordinates, Inc.